Reg No: CCGA09/20161



Faculty of Health, Science and Technology Risk Management

# **Syllabus**

## **Integrated Water and Flood Risk Management**

Course Code: CCGA09

Course Title: Integrated Water and Flood Risk Management

Integrated Water and Flood Risk Management

Credits: 15

Degree Level: Undergraduate level

**Progressive Specialisation:** First cycle, has less than 60 credits in first-cycle course/s as entry

requirements (G1F)

## Major Field of Study:

RHA (Risk Management)

### **Course Approval**

The syllabus was approved by the Faculty of Health, Science and Technology 2015-06-05, and is valid from the Spring semester 2016 at Karlstad University.

#### **Prerequisites**

At least 30 ECTS credits, or equivalent

## **Learning Outcomes**

Upon completion of the course, students should be able to:

- give an account of the basic hydro-meteorological processes that cause floods,
- explain how climate change can be expected to impact flood risks in Sweden and Europe,
- give an account of the principles of the EU Water Framework Directive and the EU Floods Directive, and how these can serve as a basis for a modern water management,
- give an account of different ways of managing flood risks through risk analysis and action plans, for instance,
- explain how water management and flood risks relate to sustainable development,
- critically evaluate and reflect on the societal management of flood risks.

#### Content

Instruction is in the form of streamed lectures, web seminars and hand-in assignments.

The course deals with basic hydro-meteorological conditions for flooding. Issues of water quality and flood risks in relation to a changing climate are treated. Basic and advanced knowledge of the EU Water Framework Directive and the EU Floods Directive is provided. Students explore if and how the implementation of integrated water management can be achieved in relation to a sustainable development. The course includes drawing conclusions of previous floods and considering how to use the knowledge for preventive purposes.

## **Reading List**

See separate document.

#### **Examination**

Assessment is based on hand-in assignments, online seminars and an individual written exam.

#### Grades

One of the grades Distinction (VG), Pass (G), or Fail (U) is awarded in the examination of the course.

## **Quality Assurance**

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course evaluation is partly based on student views and experiences obtained in accordance with current regulations and partly on other data and documentation. Students will be informed of the result of the evaluation and of any measures to be taken.

## **Course Certificate**

A course certificate will be provided upon request.

## **Additional information**

The local regulations for studies at the Bachelor's and Master's levels at Karlstad University stipulate the obligations and rights of students and staff.